3.1 : Sap xep chan giam / tang dan : So chan

3.2 : Sap xep le giam / tang dan : So le

3.3 : Sap xep giam dan ( tu be -> lon )

3.4 : Sap xep mang le & sap xep mang chan tang dan

3.5 : Doi cho So lon nhat voi so chan nho nhat

3.6 : Vi tri cap so = k ( tim 1 cap dau tien )

3.7 : Tong binh phuong cua so le

3.7.1 + Binh phuong nhung so chan

3.8 : In ra mang chan , le tren 2 dong tach biet

3.9 : Sap xep tang dan ( loai bo phan tu bi trung ) va Sap xep giam dan ( loai bo phan tu bi trung )

3.10 : Xoa phan tu lap nhieu nhat khoi mang

3.11 : Mang tang dan / giam dan

3.12 : So chan xuat hien nhieu nhat

3.13 : So chan co hai chu so xuat hien nhieu nhat

3.14 : Loai phan tu trung lap va in ra thu tu xuat hien / xuat hien chan /le

or in theo tang dan theo thu tu xuat hien / xuat hien chan /le

3.15 :

-----------------3.1 Mang chan tang/giam dan -----------------

3

2

8

6

7

OUTPUT:

2

6

8

#include <stdio.h>

#include<stdlib.h>

#include <string.h>

#include <math.h>

int main() {

system("cls");

//INPUT - @STUDENT:ADD YOUR CODE FOR INPUT HERE:

int a[5];

int i,j;

//int cnt=0;

for(i=0;i<5;i++){

scanf("%d",&a[i]);

}

int t;

for(i=0;i<5;i++){

for(j=i+1;j<5;j++){

if(a[i]%2==0 && a[i]>a[j]){ //a[i] < a[j] : giam dan \\ a[i] > a[j] : tang dan

t=a[i];

a[i]=a[j];

a[j]=t;

}

}

}

// Fixed Do not edit anything here.

printf("\nOUTPUT:\n");

//@STUDENT: WRITE YOUR OUTPUT HERE:

for(i=0;i<5;i++){

//C1:

if(a[i]%2==0)

if(i!=4){

printf("%d\n",a[i]);

}

else printf("%d",a[i]);

}

//--FIXED PART - DO NOT EDIT ANY THINGS HERE

printf("\n");

system ("pause");

return(0);

}

--------- 3.2. Mang le tang / giam dan --------------

7

5 -4 -5 9 15 8 10

OUTPUT:

-5

5

9

15

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <math.h>

int main() {

system("cls");

//INPUT - @STUDENT:ADD YOUR CODE FOR INPUT HERE:

int n,i,j;

scanf("%d",&n);

int a[n];

for(i=0;i<n;i++){

scanf("%d",&a[i]);

}

int tm;

for(i=0;i<n-1;i++){

for(j=i+1;j<n;j++)

if(a[i] %2 !=0 && a[i]<a[j]){ // a[i]>a[j] : tang dan || a[i] < a[j] : giam dan

tm=a[i];

a[i]=a[j];

a[j]=tm;

}

}

// Fixed Do not edit anything here.

printf("\nOUTPUT:\n");

//@STUDENT: WRITE YOUR OUTPUT HERE:

for(i=0;i<n;i++){

if(a[i] %2 !=0)

if(i!=n-1){

printf("%d\n",a[i]);

}

else printf("%d",a[i]);

}

//--FIXED PART - DO NOT EDIT ANY THINGS HERE

printf("\n");

system ("pause");

return(0);

}

------------------3.3 Mang giam dan -------------------------

1

3

4

2

OUTPUT:

4.00 3.00 2.00 1.00

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <math.h>

int main() {

system("cls");

//INPUT - @STUDENT:ADD YOUR CODE FOR INPUT HERE:

float a[4];

int i,j,tmp;

for(i=0;i<4;i++){

scanf("%f",&a[i]);

}

// Fixed Do not edit anything here.

printf("\nOUTPUT:\n");

//@STUDENT: WRITE YOUR OUTPUT HERE:

for(i=0;i<3;i++){

for(j=i+1;j<4;j++){

if(a[i]<a[j]){

tmp=a[i];

a[i]=a[j];

a[j]=tmp;

}

}

}

for(i=0;i<4;i++){

printf("%.2f ",a[i]);

}

//--FIXED PART - DO NOT EDIT ANY THINGS HERE

printf("\n");

system ("pause");

return(0);

}

------------3.4 : sap xep tang dan mang le roi den mang chan -------------

6

4 9 8 2 7 3

OUTPUT:

3 7 9 2 4 8

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <math.h>

int main() {

system("cls");

//INPUT - @STUDENT:ADD YOUR CODE FOR INPUT HERE:

int n,i,j;

scanf("%d",&n);

int a[n];

for(i=0;i<n;i++){

scanf("%d",&a[i]);

}

for(i=0;i<n-1;i++){

for(j=i+1;j<n;j++){

if(a[i]>a[j]){

int tmp=a[i];

a[i]=a[j];

a[j]=tmp;

}

}

}

// Fixed Do not edit anything here.

printf("\nOUTPUT:\n");

//@STUDENT: WRITE YOUR OUTPUT HERE:

int cnt=0;

for(i=0;i<n;i++){

if(a[i] %2 != 0){

printf("%d ",a[i]);

}

else cnt++;

}

for(i=0;i<n;i++){

if(a[i] %2 == 0){

printf("%d\n",a[i]);

if(cnt>1){

printf(" ");

cnt--;

}

}

}

//--FIXED PART - DO NOT EDIT ANY THINGS HERE

printf("\n");

system ("pause");

return(0);

}

--------------3.5- swap so lon nhat va so chan nho nhat-------------

7

5 2 8 0 9 6 20

OUTPUT:

5 2 8 20 9 6 0

-------------------max even swap min----------------------

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <math.h>

int main() {

system("cls");

//INPUT - @STUDENT:ADD YOUR CODE FOR INPUT HERE:

int i, j, n;

scanf("%d", &n);

int a[n];

for (i = 0; i < n; i++) {

scanf("%d", &a[i]);

}

int min = -1 , max\_even = -1 ;

for (i = 0; i < n; i++) {

if (a[i] % 2 == 0) {

if (max\_even == -1 || a[i] > a[max\_even]) {

max\_even = i;

}

}

if (min == -1 || a[i] < a[min]) {

min = i;

}

}

if (max\_even != -1 && min != -1) {

int tmp = a[max\_even];

a[max\_even] = a[min];

a[min] = tmp;

}

// Fixed Do not edit anything here.

printf("\nOUTPUT:\n");

//@STUDENT: WRITE YOUR OUTPUT HERE:

for (i = 0; i < n; i++) {

printf("%d", a[i]);

if (i < n - 1) {

printf(" ");

}

}

//--FIXED PART - DO NOT EDIT ANY THINGS HERE

printf("\n");

system("pause");

return (0);

}

------------------------min even swap max -------------------

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <math.h>

int main() {

system("cls");

//INPUT - @STUDENT:ADD YOUR CODE FOR INPUT HERE:

int i, n;

scanf("%d", &n);

int a[n];

for (i = 0; i < n; i++) {

scanf("%d", &a[i]);

}

int min\_even = -1, max = -1;

for (i = 0; i < n; i++) {

if (a[i] % 2 == 0) {

if (min\_even == -1 || a[i] < a[min\_even]) {

min\_even = i;

}

}

if (max == -1 || a[i] > a[max]) {

max = i;

}

}

if (max != -1 && min\_even != -1) {

int tmp = a[max];

a[max] = a[min\_even];

a[min\_even] = tmp;

}

// Fixed Do not edit anything here.

printf("\nOUTPUT:\n");

//@STUDENT: WRITE YOUR OUTPUT HERE:

for (i = 0; i < n; i++) {

printf("%d", a[i]);

if (i < n - 1) {

printf(" ");

}

}

//--FIXED PART - DO NOT EDIT ANY THINGS HERE

printf("\n");

system("pause");

return (0);

}

-------------3.6 - Tim cap so dau tien bang gia tri k-------------

6

6 8 4 -5 7 9

15

OUTPUT :

0

5

1

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <math.h>

int main() {

system("cls");

//INPUT - @STUDENT:ADD YOUR CODE FOR INPUT HERE:

int n,i;

scanf("%d",&n);

int a[n];

for(i=0;i<n;i++){

scanf("%d",&a[i]);

}

int k,j;

scanf("%d",&k);

int sum=0;

int cnt=0;

// Fixed Do not edit anything here.

printf("\nOUTPUT:\n");

//@STUDENT: WRITE YOUR OUTPUT HERE:

for(i=0;i<n-1;i++){

for(j=i+1;j<n;j++){

if(a[i]+a[j]==k){

++cnt;

printf ("%d\n%d\n",i,j);

printf("%d",cnt);

}

}

break; // tim duoc 1 cap thi dung

}

//--FIXED PART - DO NOT EDIT ANY THINGS HERE

printf("\n");

system ("pause");

return(0);

}

----------------3.7 - Tong binh phuong cua so le---------------

5

1 2 3 4 5

OUTPUT:

35

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <math.h>

int main() {

system("cls");

//INPUT - @STUDENT:ADD YOUR CODE FOR INPUT HERE:

int i,j,n;

int binhphuong=0;

scanf("%d",&n);

int a[n];

for(i=0;i<n;i++){

scanf("%d",&a[i]);

}

for(i=0;i<n;i++){

if(a[i] %2 != 0){

binhphuong+=a[i]\*a[i];

}

}

// Fixed Do not edit anything here.

printf("\nOUTPUT:\n");

//@STUDENT: WRITE YOUR OUTPUT HERE:

printf("%d",binhphuong);

//--FIXED PART - DO NOT EDIT ANY THINGS HERE

printf("\n");

system ("pause");

return(0);

}

--------------3.7.1 Binh phuong nhung so chan------------------

INPUT

5

3

5

4

2

7

OUTPUT

16

4

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <math.h>

int main() {

system("cls");

//INPUT - @STUDENT:ADD YOUR CODE FOR INPUT HERE:

int i,j,n;

int binhphuong=0;

scanf("%d",&n);

int a[n];

for(i=0;i<n;i++){

scanf("%d",&a[i]);

}

// Fixed Do not edit anything here.

printf("\nOUTPUT:\n");

//@STUDENT: WRITE YOUR OUTPUT HERE:

for(i=0;i<n;i++){

if(a[i] %2 == 0){

binhphuong =a[i]\*a[i];

printf("%d\n",binhphuong);

}

}

//--FIXED PART - DO NOT EDIT ANY THINGS HERE

printf("\n");

system ("pause");

return(0);

}

-----------3.8 In ra mang chan le , tren 2 dong ---------

6

4 9 8 2 7 3

OUTPUT:

4 8 2

9 7 3

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <math.h>

int main() {

system("cls");

//INPUT - @STUDENT:ADD YOUR CODE FOR INPUT HERE:

int n,i;

scanf("%d",&n);

int a[n];

for(i=0;i<n;i++){

scanf("%d",&a[i]);

}

// Fixed Do not edit anything here.

printf("\nOUTPUT:\n");

//@STUDENT: WRITE YOUR OUTPUT HERE:

for(i=0;i<n;i++){

if(a[i] %2 == 0){

printf("%d ",a[i]);

}

}

printf("\n");

for(i=0;i<n;i++){

if(a[i] %2 != 0){

printf("%d ",a[i]);

}

}

printf("\n");

//--FIXED PART - DO NOT EDIT ANY THINGS HERE

printf("\n");

system ("pause");

return(0);

}

--------------------------------------------------------------------------------------

-------3.9 : Sap xep tang dan ( loai bo phan tu bi trung ) va Sap xep giam dan ( loai bo phan tu bi trung )--------

8

3 2 5 2 4 6 5 8

OUTPUT:

2 4 6 8

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <math.h>

int main() {

system("cls");

//INPUT - @STUDENT:ADD YOUR CODE FOR INPUT HERE:

int n,i,j;

scanf("%d", &n);

int a[n];

int unique\_a[n];

int uniqueCount = 0;

for ( i = 0; i < n; i++) {

scanf("%d", &a[i]);

}

for (i = 0; i < n - 1; i++) {

for (j = i+1 ; j < n; j++) {

if (a[i] > a[j]) {

int t= a[i];

a[i] = a[j];

a[j] = t;

}

}

}

for (i = 0; i < n; i++) {

if (i == 0 || a[i] != a[i - 1] && a[i] % 2 == 0) {

unique\_a[uniqueCount] = a[i];

uniqueCount++;

}

}

// Fixed Do not edit anything here.

printf("\nOUTPUT:\n");

//@STUDENT: WRITE YOUR OUTPUT HERE:

for ( i = 0; i < uniqueCount; i++) {

printf("%d ", unique\_a[i]);

}

//--FIXED PART - DO NOT EDIT ANY THINGS HERE

printf("\n");

system ("pause");

return(0);

}

-------------------3.10- Xoa phan tu lap nhieu nhat khoi mang--------------------------------------

5

1 4 8 4 6

1 8 6

#include <stdio.h>

int main() {

int n,i,j;

scanf("%d", &n);

int a[n];

int uniqueArr[n];

int counts[n];

for ( i = 0; i < n; i++) {

scanf("%d", &a[i]);

counts[i] = 0;

}

int maxCount = 0;

for ( i = 0; i < n; i++) {

int count = 0;

for ( j = 0; j < n; j++) {

if (a[i] == a[j]) {

count++;

}

}

counts[i] = count;

if (count > maxCount) {

maxCount = count;

}

}

int uniqueCount = 0;

for ( i = 0; i < n; i++) {

if (counts[i] < maxCount) {

uniqueArr[uniqueCount++] = a[i];

}

}

for ( i = 0; i < uniqueCount; i++) {

printf("%d ", uniqueArr[i]);

}

printf("\n");

return 0;

}

----------------------------3.11 Mang tang/giam dan --------------

1

3

2

4

6

8

10

OUTPUT:

1 2 3 4 6 8 10

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <math.h>

int main() {

system("cls");

//INPUT - @STUDENT:ADD YOUR CODE FOR INPUT HERE:

int a[7];

int i,j;

//int cnt=0;

for(i=0;i<7;i++){

scanf("%d",&a[i]);

}

int t;

for(i=0;i<6;i++){

for(j=i+1;j<7;j++){

if(a[i]>a[j]){ //a[i] < a[j] : giam dan \\ a[i] < a[j] : tang dan

t=a[i];

a[i]=a[j];

a[j]=t;

}

}

}

// Fixed Do not edit anything here.

printf("\nOUTPUT:\n");

//@STUDENT: WRITE YOUR OUTPUT HERE:

for(i=0;i<7;i++){

//C1:

if(i!=6){

printf("%d ",a[i]);

}

else printf("%d",a[i]);

}

//--FIXED PART - DO NOT EDIT ANY THINGS HERE

printf("\n");

system ("pause");

return(0);

}

----------------------3.12: So chan xuat hien nhieu nhat -----------------------

#include <stdio.h>

int main() {

int numbers[7];

int evenCount[101] = {0}; // Array to count the occurrences of even numbers (0 to 100)

int maxEvenCount = 0;

int i;

// Prompt the user to enter 7 integers

for ( i = 0; i < 7; i++) {

scanf("%d", &numbers[i]);

if (numbers[i] % 2 == 0) {

evenCount[numbers[i]]++;

if (evenCount[numbers[i]] > maxEvenCount) {

maxEvenCount = evenCount[numbers[i]];

}

}

}

if (maxEvenCount > 0) {

printf("The even numbers that appear the most frequently are: ");

for ( i = 0; i <= 100; i++) {

if (evenCont[i] == maxEvenCount && i % 2 == 0) {

printf("%d ", i);

}

}

printf("\n");

} else {

// No even number found

printf("Pew!!!\n");

}

return 0;

}

----------------------3.13 : So chan co hai chu so xuat hien nhieu nhat -----------------------

#include <stdio.h>

int main() {

int numbers[7];

int twoDigitCount[100] = {0};

int maxTwoDigitCount = 0;

int i;

for ( i = 0; i < 7; i++) {

scanf("%d", &numbers[i]);

if (numbers[i] >= 10 && numbers[i] <= 99) {

twoDigitCount[numbers[i]]++;

if (twoDigitCount[numbers[i]] > maxTwoDigitCount) {

maxTwoDigitCount = twoDigitCount[numbers[i]];

}

}

}

if (maxTwoDigitCount > 0) {

for ( i = 10; i <= 99; i++) {

if (twoDigitCount[i] == maxTwoDigitCount) {

printf("%d ", i);

}

}

printf("\n");

} else {

printf("No two-digit number.\n");

}

return 0;

}

-------------------- 3.14 : Loai phan tu trung lap va in ra thu tu xuat hien--------------

5

7

1

3

3

2

Output :

7

1

3

2

#include <stdio.h>

int main() {

int n,i,j;

scanf("%d", &n);

if (n <= 0) {

return 1; // Exit with an error code

}

int a[10];

int oddSeen[101] = {0}; // Array to keep track of seen odd numbers

int resultArray[10]; // To store the resultant list

int resultCount = 0;

for ( i = 0; i < n; i++) {

scanf("%d", &a[i]);

if ( oddSeen[a[i]] == 0) { // chan , le them dieu kien a[i] % 2 != 0 && oddSeen[a[i]] == 0

oddSeen[a[i]] = 1;

resultArray[resultCount] = a[i];

resultCount++;

}

}

Sap xep

// Sort the resultant list in ascending order (bubble sort)

// for (int i = 0; i < resultCount - 1; i++) {

// for (int j = 0; j < resultCount - i - 1; j++) {

// if (resultArray[j] > resultArray[j + 1]) {

// // Swap elements

// int temp = resultArray[j];

// resultArray[j] = resultArray[j + 1];

// resultArray[j + 1] = temp;

// }

// }

// }

// Print the resultant list of numbers

for ( i = 0; i < resultCount; i++) {

printf("%d\n", resultArray[i]);

}

return 0;

}